

In the Claims:

Add new claims 14 to 20 as follows.

14. (New) An isolated and purified nucleic acid molecule coding for a high molecular weight protein selected from the group consisting of HMW1, HMW2, HMW3 and HMW4 of a non-typeable *Haemophilus* strain or an immunogenic fragment thereof.

15. (New) A vector for transformation of a host cell comprising the nucleic acid molecule of claim 14.

16. (New) An isolated and purified nucleic acid molecule encoding a high molecular weight protein of a non-typeable strain of *Haemophilus*, which is selected from the group consisting of:

- (a) a DNA sequence as shown in any one of Figures 1, 3, 8 and 9 (SEQ ID Nos: 1, 3, 7 and 8);
- (b) a DNA sequence encoding an amino acid sequence as shown in any one of Figures 2, 4 and 10 (SEQ ID Nos: 2, 4, 9 and 10); and
- (c) a DNA sequence which hybridizes under stringent conditions to any one of the sequences of (a) and (b).

17. (New) The nucleic acid molecule of claim 16 wherein the DNA sequence has at least about 90% sequence identity to any one of the sequences of (a) and (b).

18. (New) A vector for transformation of a host cell comprising the nucleic acid molecule of claim 16.

19. (New) A method for the production of an isolated and purified high molecular weight protein of a strain of non-typeable *Haemophilus*, which comprises:

assembling an expression vector containing the nucleic acid molecule of claim 16 and a promoter operatively coupled to said nucleic acid molecule,

transforming a host cell with the expression vector, expressing the high molecular weight protein in the host cell, and isolating and purifying the expressed high molecular weight protein.

20. (New) The method of claim 19 wherein said isolated and purified high molecular weight protein is formulated along with a pharmaceutically-acceptable carrier therefor into an immunogenic composition.